Paper No. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES
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Ex parte WILLIAM T. WEBB
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Appeal No. 1997-1232
Application 08/182,035[1]
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HEARD: December 7, 1999
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Before FLEMING, RUGGIERO and HECKER, Administrative Patent
Judges.

RUGGIERO, Administrative Patent Judge.

DECISION ON APPEAL

        This is a decision on appeal from the final

rejection of claims 1, 2, and 23. An amendment after final

rejection was filed July 5, 1995 which was entered by the

Examiner as stated in the Advisory Action dated August 23,

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        [1] Application for patent filed January 14, 1994.

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1995.

Appeal No. 1997-1232
Application No. 08/182,035

In this Advisory Action, the Examiner indicated that claims

3-16 and 18-22 were objected to and that claim 24 was allowed.

Accordingly, this appeal involves only claims 1, 2, and 23.[2]

The claimed invention relates to a method and system for

recovering timing information from a digital data signal.

More particularly, Appellant indicates at page 3 of the

specification that a periodic assessment of the data signal is

performed to determine the occurrence of a peak in a part of

the signal to thereby determine the suitability of that part

of the signal for providing timing information.

Claim 1 is illustrative of the invention and reads as

follows:

1.   A method recovering timing information from a digital
data signal, said method comprising;

    periodic assessment of the signal to determine the
 suitability of a detected maximum or minimum signal value
within   a part of the signal for providing timing information
and

_____

    [2] In the Status of Claims section on page 2 of the Appeal
Brief filed October 3, 1995, Appellant calls attention to the
fact that claims 15 and 16 are presumed to be allowed in view
of the rewriting of claim 15 in independent form in light of
the Examiner's statement in the Office action dated October 7,
1994. The Examiner has confirmed Appellant's statement of the
status of claims at page 1 of the Answer.

recovery of timing information from only the parts of the signal so identified.

The Examiner relies on the following prior art:

Weber   4,520,492   May 28, 1985
Carmon   5,200,981   Apr. 06, 1993
                                        (Effectively filed Aug. 07, 1990)

Claims 1, 2, and 23 stand rejected under 35 U.S.C. §

102(b) as being anticipated by Weber.[3] Claims 1, 2, and 23

further stand rejected under 35 U.S.C. § 102(e) as being

anticipated by Carmon.[4]

Rather than reiterate the arguments of Appellant and the

Examiner, reference is made to the Briefs[5] and Answers for the

respective details thereof.

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[3] As correctly noted by Appellant on page 1 of the Brief,
the third word "of" in the preamble of claim 1 was
inadvertently omitted in the amendment filed January 6, 1995.

[4] The 35 U.S.C. § 102(e) rejection based on Carmon was set
forth as a new ground of rejection in the Examiner's Answer.

[5] The Appeal Brief was filed October 3, 1995. In response
to the Examiner's Answer dated February 8, 1996, a Reply Brief
was filed April 4, 1996. The Examiner entered the Reply Brief
and submitted a Supplemental Examiner's Answer on July 11,
1996. A Supplemental Reply Brief filed by Appellant on July
31, 1996 was acknowledged and entered by the Examiner without
further comment on October 30, 1996.

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the Examiner, the arguments in support of the rejections, and the evidence of anticipation relied upon by the Examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, Appellant's arguments set forth in the Briefs along with the Examiner's rationale in support of the rejections and arguments in rebuttal set forth in the Examiner's Answers.

It is our view, after consideration of the record before us, that neither the disclosure of Weber nor that of Carmon fully meets the invention as recited in claims 1, 2, and 23. Accordingly, we reverse.

We consider first the rejection of claims 1, 2, and 23 under 35 U.S.C. § 102(b) as being anticipated by Weber. Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional limitations. RCA Corp. v. Applied

Digital Data Sys., Inc.,

730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.), cert.

dismissed, 468 U.S. 1228 (1984); W.L. Gore and Assoc, Inc. v.

Garlock, Inc., 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed.

Cir. 1983), cert. denied, 469 U.S. 851 (1984).

At page 3 of the Answer, the Examiner has attempted to

read the various limitations of the claims on the Weber

reference.   In response, Appellant argues several alleged

distinctions over Weber including the contention (Brief, page

8) that, in contrast to the claimed invention where a

suitability assessment of detected maximum and minimum values

is performed periodically to assess suitability of the

detected information, Weber's values, which are detected every

cycle, are utilized to update timing information without any

assessment of suitability.

Upon careful review of the Weber reference in light of

the arguments of record, we are in agreement with Appellant's

stated position in the Briefs. In our view, Appellant is

correct in his assertion that Weber's technique of setting a

sampling time as that time in which the magnitudes of the

quadrature components of a signal are equal requires no

assessment of suitability. The determination by Weber of the

points of intersection of the quadrature component curves,

i.e. the point at which the magnitudes of the amplitudes are

equal, produces meaningful timing information every cycle

obviating the need to assess the suitability of the

information as presently claimed. Since all of the claimed

limitations are not disclosed by Weber, it is our opinion that

the Examiner's 35 U.S.C. § 102(b) rejection based on Weber is

not well founded.

Turning to a consideration of the 35 U.S.C. § 102(e)

rejection of claims 1, 2, and 23 based on Carmon, we find

Appellant's arguments to be equally persuasive. We agree with

Appellant's assertion (Reply Brief, page 3) that the method

described by Carmon determines only whether a timing advance

or delay is required but does not detect a maximum or minimum

value as required by the language of independent claim 1. In

our view, Carmon's method, described in particular at columns

8 and 9, utilizes an algorithm which enables a determination

as to whether maximum or minimum peaks fall between two

sampling points on a curve but has no disclosure related to

the actual detection of the values of those peaks. Similarly,

we agree with Appellant's argument (Reply Brief, page 4) that

the language of independent claim 2 which requires the

determination of a timing point from a part of the signal

having a detected suitability is not met by the disclosure of

Carmon. Our review of Carmon indicates that no actual timing

point is derived but, rather, only whether the present timing

point is to be advanced or retarded.

In view of the above, it is our opinion that, since all of the claimed limitations are not taught or suggested in the prior art of record, the Examiner has not established a prima facie case of anticipation. Accordingly, we do not sustain the

35 U.S.C. § 102 rejections of claims 1, 2, and 23.

In summary, we have not sustained either of the Examiner's rejections of the claims on appeal. Therefore, the decision of the Examiner rejecting claims 1, 2, and 23 is reversed.

<u>REVERSED</u>

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	)	
JOSEPH F. RUGGIERO	)	BOARD OF PATENT
Administrative Patent Judge	)	
	)	APPEALS AND
	)	
	)	INTERFERENCES
	)	
STUART N. HECKER	)	
Administrative Patent Judge	)	

FLEMING, <u>Administrative Patent Judge</u>, Dissenting-in-Part:

While I agree that the rejection of claims 2 and 23 under 35 U.S.C. § 102 should be reversed for the reasons set forth

by the majority, I would have affirmed the rejection of claim
1 under 35 U.S.C. § 102 as being anticipated by Carmon.

    The majority states on page 6 of the opinion that Carmon
"does not detect a maximum or minimum value as required by the
language of independent claim 1." The majority reasons that
Carmon's method "utilizes an algorithm which enables a
determination as to whether maximum or minimum peaks fall
between two sample points on a curve but has no disclosure
related to the actual detection of the values of those peaks".
Emphasis added.   As pointed out by our reviewing court, we
must first determine the scope of the claim. "[T]he name of
the game is the claim." In re Hiniker Co., 150 F.3d 1362,
1369, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998). Claims will be
given their broadest reasonable interpretation consistent with
the specification, and limitation appearing in the
specification are not to be read into the claims. In re
Etter, 756 F.2d 852, 858, 225 USPQ 1, 5   (Fed. Cir. 1985).

    Appellant's claim 1 recites "periodic assessment of the
signal to determine the suitability of a detected maximum or
minimum signal value within a part of the signal for providing

timing. . ." Emphasis added. Appellant's claim only requires

detecting a maximum or minimum. The claim does not require

that the maximum or minimum signal value must be actually

determined.

While I agree that Appellant's disclosure provides a
preferred embodiment in which the maximum or minimum value is
detected by determining the actual value of the maximum or
minimum, the prior art teaches other possible ways in which
the maximum and minimum signal is detected without actually
determining the actual value of the maximum or minimum.
Carmon teaches in column 8, lines 28 through 64, a method in
which the maximum or minimum signal value is detected by
determining the sign of the second order derivative of these
signals evaluated at the input sample points. A positive sign
corresponds to a place near a local minimum, a negative sign
corresponds to a place near a local maximum. Carmon teaches
that by careful consideration of these signs of the input
sample point, it is possible to detect the actual maximum or
minimum signal value. Carmon further teaches in detail in
column 8, line 64 through column 12, line 8, the mathematics
of this method of using a sign of the second order derivatives
to detect the maximum and minimum signal values.

Because Appellant's claim 1 does not preclude methods in
which the maximum and minimum signal value can be detected
without actually determining the value itself, I would affirm

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the Examiner's decision. The majority appears to be reading

an

additional method step into Appellant's claim 1 which requires

determining of the actual maximum and minimum value.

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                                    )   BOARD OF PATENT
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            MICHAEL R. FLEMING      )     APPEALS AND
            Administrative Patent Judge  )
                                    )    INTERFERENCES
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JFR/MRF:hh

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